

What is claimed is:

1. A method of performing person recognition comprising the steps of:
  - obtaining data of a first eigenvector of a person;
  - obtaining data of a second eigenvector of the person;
  - concatenating the data of the first eigenvector with the data of the second eigenvector to obtain a composite eigenvector; and
  - performing person recognition using the obtained composite eigenvector.
2. The method of claim 1 further comprising the step of:
  - performing linear transformation on the obtained composite eigenvector.
3. The method of claim 2, wherein linear transformation is principle component analysis.
4. The method of claim 1, wherein the data of the first eigenvector is of an eigenvoice vector.
5. The method of claim 1, wherein the data of the second eigenvector is of an eigenface vector.

6. The method of claim 1, wherein the step of performing person recognition comprises comparing the composite eigenvector with an eigenvector of a select person to determine if there is a match.

7. The method of claim 6, wherein the eigenvector of the select person is a composite vector obtained by concatenating the data of at least two eigenvectors, one of which is an eigenvoice vector.

8. The method of claim 6, wherein the eigenvector of the select person is a composite vector obtained by concatenating the data of at least two eigenvectors, one of which is an eigenface vector.

9. The method of claim 6, wherein the eigenvector of a select person is at least a composite vector obtained by concatenating the data of at least two eigenvectors, one of which is data of an eigenvoice vector and the other of which is data of an eigenface vector.

10. The method of claim 2, wherein the step of performing person recognition comprises comparing the composite eigenvector with more than one eigenvector, each of which is for a discrete person, to determine if there is a match.

11. The method of claim 10, wherein the eigenvectors of each discrete person is obtained by concatenating the data of at least two eigenvectors, one of which is an eigenface vector.

12. The method of claim 10, wherein the eigenvectors of each discrete person are obtained by concatenating the data of at least two eigenvectors, one of which is an eigenvoice vector.

13. The method of claim 10, wherein the eigenvectors of each discrete person are obtained by concatenating the data of at least two eigenvectors, one of which is data of an eigenvoice vector and the other of which is data of an eigenface vector.

14. A method of performing person recognition comprising the steps of:  
processing a video signal of at least one person of a select group of people to obtain data of a first eigenvector;  
processing an audio signal of the at least one person of the select group of people to obtain data of a second eigenvector;  
concatenating the data of the first eigenvector with the data of the second eigenvector to obtain a composite eigenvector; and  
using the composite eigenvector to make a recognition decision about a person.

15. The method of claim 14, further comprising the step of:

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processing a video signal of a person to be identified to obtain data of a fourth eigenvector;

processing an audio signal of the person to be identified to obtain data of a fifth eigenvector; and

concatenating the data of the fourth and fifth eigenvectors to obtain a sixth composite eigenvector; wherein the recognition decision is based on a comparison of the third and the sixth composite eigenvectors.

16. The method of claim 15, wherein:

the data of the fourth eigenvector is of an eigenface vector;

the data of the fifth eigenvector is of an eigenvoice vector; and

the sixth composite eigenvector is of a person to be identified as being of the select group of people.

17. An apparatus for determining person recognition comprising:

processor operable to process data of a first eigenvector of a person to be recognized and data of a second eigenvector of that person to obtain a composite eigenvector; and  
means to compare the composite eigenvector with an eigenvector obtained from eigenvectors of a person of a select group of people to determine a level of correlation between the two.

18. The apparatus of claim 17, wherein the eigenvectors of a person of a select group comprises a composite eigenvector obtained by concatenating data of an eigenface vector and an eigenvoice vector.

19. The apparatus of claim 18, wherein for each person of the select group, there is a composite eigenvector obtained by concatenating data of an eigenface vector and an eigenvoice vector; and further comprising storage means coupled to the processor for storing the composite eigenvector obtained by concatenating data.